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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,412	03/02/2005	Thomas Anthony Stahl	PU020417	6515
24498	7590	02/04/2008		
Joseph J. Laks THOMSON LICENSING LLC 2 Independence Way, Patent Operations PO BOX 5312 PRINCETON, NJ 08543			EXAMINER RECEK, JASON D	
			ART UNIT 2142	PAPER NUMBER
			MAIL DATE 02/04/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/526,412

Applicant(s)

STAHL ET AL.

Examiner

Jason Recek

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

This is in response to the amendment filed on November 13<sup>th</sup> 2007 which concerns application 10/526,412.

### ***Status of Claims***

Claims 1-17 are pending.

Claims 1-12 are finally rejected under 35 U.S.C. 103(a).

Claims 13-17 are finally rejected under 35 U.S.C. 102(e).

### ***Response to Arguments***

1. Applicant's arguments, with respect to the objection of claim 6 have been fully considered and are persuasive. The objection of claim 6 has been withdrawn.
2. Applicant's arguments filed November 13<sup>th</sup> 2007 have been fully considered but they are not persuasive.
3. Applicant argues that Haddock and Metin do not teach or suggest all the limitations of claim 1, specifically that Metin does not disclose switch devices that have embedded QoS features such as "determining whether there is sufficient bandwidth

available to establish a reserved connection path” and “establishing and allocating bandwidth for a reserved connection path” as recited by claim 1. This argument is not persuasive. Metin discloses that there are QoS classes defined in the switch (paragraph 36). Metin discloses that the devices in the path of the hosts (e.g. the switches) reserve resources (paragraph 37). Metin further discloses that the control logic (Fig. 2 item 5), which is inside the switch, can determine whether sufficient bandwidth is available (paragraph 39). Thus the switches are capable of “determining whether there is sufficient bandwidth available to establish a reserved connection path”. Metin also discloses that all switches in the necessary path reserve the necessary resources (paragraph 40). Thus the switches “establish and allocate bandwidth” by reserving resources.

4. Applicant argues that Metin does not disclose the recitations of claim 13. With respect to the recitations that are similar to claims 1 and 9 that argument is not persuasive for the reasons given above. Applicant specifically argues that Metin does not disclose “allocating an output queue within said first network switch” as recited by claim 13. This argument is not persuasive because Metin does in fact disclose this. Metin discloses reserving necessary resources (paragraph 40). One resource that is necessary is a port, ports have queues (Fig. 2). Thus Metin discloses “allocating an output queue”.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haddock et al. U.S. Pat. 6,678,248 B1 in view of Metin et al. US 2002/0031142 A1.

Regarding claim 1, Haddock discloses "a switch in packet communication" as a network switch (col. 3 ln. 46-48), "the switch adapted to detect and forward packets that contain prioritized data" as a switch that handles quality of service (col. 3 ln. 48-50), "the switch having a plurality of output queues associated with egress ports of the switch that correspond to different priorities associated with received priority packets" as a switch that has a plurality of output queues (col. 6 ln. 7-8), "additional output queue associated with reserved connection data packets" as a quality of service queue that is reserved for specific traffic (col. 6 ln. 7-12), and "each packet received [...] determining whether the packet is associated with the reserved connection and forwarding those packets to the additional output queue" as a switch that is able to look at the packet and make forwarding decisions (col. 4 ln. 38-48, col. 9 ln. 42-50). Haddock does not disclose "packets that include requests for reserved connections" nor "the switch [...] in response to a reserved connection request, determining whether there is sufficient bandwidth available to establish a reserved connection path within the network, and if so,

establishing a reserved connection path and allocating the bandwidth for the reserved connection path” however these are taught by Metin as a packet switched network that uses Resource Reservation Protocol (RSVP) which would carry packets that include requests for reserved connections (pg. 4 paragraph 37) and switches that reserve resources if they are available and include control logic to perform QoS (paragraphs 36-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Haddock with the switches of Metin that are able to process RSVP. The reason for doing so would be to conform with network reservation protocols.

Regarding claim 2, Haddock discloses “the network comprises an Ethernet network” (col. 4 ln. 7).

Regarding claim 3, Haddock does not disclose “switches are coupled to one another in cascading fashion” however Metin discloses multiple switches in a path between hosts (pg. 4 paragraph 40) and such switches are capable of receiving reserved connection requests and reserving resources (pg. 4 paragraph 40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Haddock with the switches of Metin that are able to process RSVP. The reason for doing so would be to conform with network reservation protocols.

Regarding claim 4, Haddock discloses "[switch having] an internal mapping table" (col. 8 ln. 65-67, col. 9 ln. 48-50).

Regarding claim 5, Haddock does not specifically disclose "forwarding the reserved connection request to all output ports when the internal mapping table does not include the requested destination address". However it is well known to one of ordinary skill in the art at the time of the invention that when a switch does not know a destination address the packet may be forwarded to all ports (with the possible exception of the incoming port). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to flood non-matching packets for the purpose of forwarding connection requests to all output ports when the requested destination address is unknown. The motivation being, to enhance packet forwarding.

Regarding claim 6, Haddock does not disclose "switch is operable to generate a signal indicating denial of bandwidth allocation back toward the requesting device" however this is taught by Metin as a switch that runs RSVP would necessarily be able to send Path-Err messages upstream (pg. 4 paragraphs 37, 39)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Haddock with the switches of Metin that are able to process RSVP. The reason for doing so would be to conform with network reservation protocols.

Regarding claim 7, Haddock discloses "the switch operates at one of service layer 2 and service layer 3" as a switch that uses layer 2 and layer 3 information (col. 4 In. 38-40).

Regarding claim 8, Haddock does not disclose using RSVP however this is taught by Metin (pg. 4 paragraph 37).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Haddock with the switches of Metin that are able to process RSVP. The reason for doing so would be to conform with network reservation protocols.

Regarding claim 9, Haddock discloses "switch comprising: an input for receiving packets from one of the at least two end stations" as network switch with ports (col. 3 In. 46-48), "a plurality of out queues [that correspond to priorities of packets]" as a number of quality service queues (col. 3 In. 48-50), "at least one additional output queue associated with reserved connection data packets" as a quality of service queue that is reserved for specific traffic (col. 6 In. 7-12), "a packet sorter" as a forwarding database (col. 4 In. 38-48). Haddock does not disclose "detector for detecting whether the received packet includes a request for a reserved connection" nor "allocator [for determining and allocating sufficient bandwidth]" however these are taught by Metin as a switch that handles RSVP which includes reserved connection requests and control



logic for performing QoS (paragraphs 36-37) and a switch that can allocate the necessary resources (paragraphs 39-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Haddock with the switches of Metin that are able to process RSVP. The reason for doing so would be to conform with network reservation protocols.

Regarding claim 10, it is substantially similar to claim 3 and is rejected for the same reasons.

Regarding claim 11, Haddock discloses "switch examines at least one of MAC address information and IP address information of each packet" as a switch that uses layer 2 and layer 3 information to make decisions (col. 4 ln. 38-42).

Regarding claim 12, Haddock discloses "switch compares the input packet address information with pair addresses stored in memory" as a switch using a forwarding database (col. 4 ln. 38-48), and "if the pairs match [...] packet is sent to the at least one additional output queue" as a switch that sends a matching packet to a specific output port based on quality of service (col. 3 ln. 50-54, col. 4 ln. 46-48).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 13-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Metin.

Regarding claim 13, Metin discloses “a first network switch device receiving and detecting prioritized packets and packets that include requests for reserved connections” as a network with a switch which recognizes RSVP (pg. 4 paragraph 37), “forwarding the prioritized packets” as switches that forward packets (Fig. 2), “determining, by said first network switch device whether sufficient bandwidth is available [for establishing a path]” as a network switch in a path that determines and reserves the necessary resources (paragraphs 39-40).

Regarding claim 14, Metin discloses "parsing in said first device header information [...] for determining whether the received packet is a bandwidth reservation request message" as a switch that is capable of using RSVP (pg. 4 paragraph 40) and recognizing reservation request messages (pg. 4 paragraph 39).

Regarding claim 15, Metin discloses "MAC addresses are stored and compared with packet information for determining reserved connection stream packets" as control logic and memory in a switch (pg. 3 paragraph 35, Fig. 1).

Regarding claim 16, Metin discloses "IP addresses are stored and compared with packet information for determining reserved connection stream packets" as control logic and memory in a switch (pg. 3 paragraph 35, Fig. 1).

Regarding claim 17, Metin discloses "the first network switch device forwarding the reserved connection request to a second network switch device in the path downstream" as passing along the reservation request (paragraph 40, Fig. 3 step 16A).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
6. Erimli et al. U.S. 6,745,246 B1 discloses a switch that reserves bandwidth.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

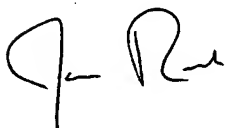
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Recek whose telephone number is (571) 270-1975. The examiner can normally be reached on Mon - Thurs 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Application/Control Number:  
10/526,412  
Art Unit: 2142

Page 12

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